

CHAPTER 55 EXPERIMENTAL AIRCRAFT ASSOCIATION

SEPTEMBER 2011



Meetings are the 2nd Saturday of each Month

EAA Chapter 55 Hangar - Mason Jewett Airport – 643 Aviation Drive, Mason, MI 48854

Pres: Ken Vandenbelt 589-5051 Vice Pres: Bill Purosky 214-2729 Treas: Al Spalding 676-3370

Secr: Vickie Vandenbelt 589-5051 Editor: Warren Miller 214-2656 (all Area Code 517) www.EAA55.org



Climb and Maintain Flight Level 55

When all is said and done, it's been a pretty good summer. We flew Young Eagles in June, July & August - it's the first time in many years that I can recall actually flying kids in all three months.

Doug says our total so far is around 170 and that's respectable.

Our Dawn Patrol could have been better but that's what happens when an event is "weather dependent". At least a lot of pilots flew in.

We would have had a fabulous Mason Aviation Day if the weather would have held off until after 6pm. (The one

forecaster who predicted it would be wrong - again.)

As it turns out, the morning was great.

None of the steaks went to waste as members look

forward to purchasing any surplus. I'll leave the rest of the details to Vickie's report.

Let's hope we have a long and beautiful fall - with lots of great flying days!! We'll kick it off this Saturday with an MDOT Safety Seminar.

Share the passion,
Ken Vandenbelt, President



Wing #1 fabric covering & rib stitching begin ...



Breakfast Teams

September

Dick Bacon
Barb Bacon
Ernie Lutz
Ronald Pearce
Judith Search
Connie Stewart
Carl Zayata

October

Rosemary Duckworth
Fred Honhart
Greg Hover
John Karlen
Terry Lutz
Roger Reeve
Drew Sequin
Craig Tucker



August Breakfast Cooks: Bruce Thorburn; Pete Chestnut, Tom Sheehan, Bruce VanFarowe, Steve Houghton

ICE CREAM KLONDIKE BARS
Stop & buy ice cream every trip to the airport!

EAA Chapter 55

Board of Directors Meeting, August 10, 2011

→ Meeting was called to order at 7:03pm. → Directors present: Ken Vandenbelt, Bill Purosky, Al Spalding, Vickie Vandenbelt, Joe Madziar, Doug Koons, Jim Spry, Ed Search, Dave James. Absent: Warren Miller. Guest: Steve Houghton → Secretary's Report dated 7/6/11; Doug Koons made a motion to approve; Bill Purosky second; all approved. → Treasurers Report dated 7/31/11; Vickie Vandenbelt made a motion to approve; Joe Madziar second; all approved. → Nominating Committee: Ed Search volunteered to assist Joe Madziar; no candidates as yet. → MAD: still need volunteers; Ed Search will make some calls. → MDOT seminar schedule for September meeting. → Ed Search volunteered to investigate scheduling the EAA Ford Tri-Motor for one of our events the 3rd Saturday of August. → VHS tapes; decided to sell our surplus for .50 cents each. → Discussed Builders Hanger utility charges with Steve Houghton. Doug Koons made a motion to repeal previous decision on changing billing of Consumers charges to builders hangers occupants and leave as previously done pending further analysis; Dave James second; all approved. → Ernie Lutz birthday party to be held in EAA hanger; may need some member volunteers to assist. → "Thank you" card from the Franklin family. → "Thank you" from the MACC. → Doug Koons made a motion to adjourn; Joe Madziar second; meeting adjourned at 8:29pm.

EAA Chapter 55

Gen'l Membership Meeting, August 13, 2011

→ Meeting was called to order at about 9:13am with approximately 34 members & 2 guests present. → Following the National Anthem, President Vandenbelt thanked the breakfast team and announced the team for September. → Secretary's Report dated 7/9/11; motion to approve; second; all approved. → Treasurers Report dated 7/31/11; finish of DP expenses & beginning of MAD were main expense; motion to approve; second; all approved. → Young Eagles; Doug Koons reported we flew 34 in June; 60 in July and ready for August. → "Thank You" card from the Franklin & Younkin families. → Nominating Committee; Joe Madziar & Ed Search announced people are beating the door down with nominations (none so far). → MAD announcements & set up party info. → Al St. George commented on the Home Builders Info Kit - Before You Fly. Also asked for a committee to look into hard hats for flight tests. → Motion made & meeting adjourned a 9:26am.



TIDBITS ~

By Vickie Vandenbelt

NEW MEMBERS: Chapter 55 welcomes new member Robert Prenzy. We also welcome two new student members - Hunter Gladstone & Bretan Pheley (who are also with the Civil Air Patrol).

REFRESHMENTS: Come to the airport often and be sure to stop in the hanger for a snack. We have lots of chips & candy, pop in the frig, and Klondike Bars in the freezer !!

BREAKFAST TEAMS: We've been having some months with little or no team members reporting. I am going to re-work the roster for 2012. If you have a month that works better for you than others, please let me know.

BE INVOLVED: Right now, our nominating committee (Joe Madziar & Ed Search) is canvassing for President, Vice President, Secretary, Treasurer. Think about getting more involved & let them know of your interest. If the BOD doesn't appeal to you, we will also be looking for an Event Coordinator & Event Planning committee members for 2012.

Don't you think it would be great if we had a Fly Out/Social Activities Coordinator - especially if we could work toward getting more of our "non-flying" members an opportunity to be in the air.

Al St. George has taken on the task of doing updates on projects for our newsletter - would you consider contributing an article at least once a year - maybe a little biographical info or story or a review of a book or movie ??



YOUNG EAGLES

By Doug Koons

Hi Everyone, Our Chapter has given 170 kids a Young Eagle Ride so far this year. This brings our Chapter 55 total to 2,749. I will put the new pilot numbers up at the Chapter before our next meeting.

I want to thank all the pilots and ground crew volunteers that helped make this another great year. It is so much fun introducing so many kids to aviation.



NOTES FROM CAPE JUBY

By Terry L. Lutz

Chapter 55 Flight Advisor

For many years, I have been an active member of the IFALPA Airworthiness, Design, and Operations Committee. IFALPA stands for International Federation of Air Line Pilots Associations. In plain words, it's a central federation that represents pilot unions from around the world. Headquarters is in London, but meetings are held in various countries around the world. I recently reported on a visit to the Air Museum in Belgrade, Serbia, where the last ADO Committee meeting was held.

The current Chairman is a Captain at Lufthansa, and his Vice Chairmen are from Austrian Airlines, and American Eagle in the United States. Representatives come from Israel, Singapore, Japan, Australia, Mexico, and Switzerland, just to name a few countries represented worldwide. One of the younger members is Thomas Wieser, the current Vice Chairman for Design. Having been the previous Vice Chairman for Design, I recommended Thomas for the position when I moved to Airbus. Thomas is a First Officer flying the B777 at Austrian Airlines, and lives in Vienna.

Thomas is very active as a light airplane pilot. He is an instructor pilot, and holds licenses in the United States as well as Europe. Diamond Aircraft is located at the Wiener Neustadt Ost Airport, south of the city of Vienna. They have a complex of several modern buildings, and there are numerous Diamond aircraft models on the ramp, either ready for delivery, or in for factory service and modifications. Thomas is a member of the Diamond Aircraft Aeroclub, with access to several aircraft. He is also a ferry pilot for Diamond, so he has access to factory demonstrator aircraft.

Before I discuss the flying we did, here is a summary of the ferry flights Thomas has made in the DA-42, a twin-diesel powered aircraft. Note that these are not short hops, such as Vienna to London, or Vienna to Oslo. In 6 ferry flights, he has flown to Bangkok, Thailand (40 hrs), Udingtani, Thailand (40 hrs), Seoul, Korea via Bangkok (55 hrs), Al Ain, United Arab Emirates (20 hrs), Abu Dhabi (23 hrs), and Tianjin, China (68 hrs). To reach Tianjin, he made the following stops: Kiev (in the Ukraine), Voronez, Samara, Chelabinsk, Omsk, Drasnojarsk, Irkutsk, Ulanbator (Mongolia), then Tianjin. Indiana Jones would be envious. I am envious!

Thomas suggested that we fly as many aircraft as time and aircraft scheduling would allow. We began by flying a Katana. Remember that airplane? It was used as a training airplane at Mason-Jewett a few years back, before the small training schools began to disappear. The airplane we flew, OE-AKL, was Katana serial number 3. If you were to ask how robust these airplanes are, I can tell you from a logbook inspection that more than 16,000 landings have been made with this particular airplane.



Even with a 100 hp Rotax 912 engine, the airplane is equipped with a constant speed propeller for more efficient takeoff, climb, and cruise performance. The pitot-static probe is very similar to the one on the low-wing Piper aircraft. One of the things I found very nice about all the models of Diamond Aircraft was ease of entry. I could put my foot on the external step and swing myself up and into the airplane. Seating is comfortable, and visibility through the canopy is outstanding. The airplane has three position flaps, Up – Takeoff/App – Land. You set the lever and a light comes when they are in position. The fuel system is a bit different, because it feeds the engine only from the left tank. Fuel automatically flows from the right tank to the left tank, and then to the engine. If the left feed fails, fuel can be emergency transferred from the right tank to the engine, but the flow rate is more than the engine needs, and the overflow will go to the left (already failed) tank. So you need to keep a sharp pencil for fuel used should that happen.

Because a club member had scheduled the airplane at 1100, we had just enough time to fly the pattern. Logged a whole 6 minutes! But I got to operate the airplane, and to see the pattern at relatively slow speed before moving on to the faster airplanes. Immediately to the east Wiener Neustadt Ost Airport is a huge field of grass that's normally used by the Austrian military for paratroop activities. On weekends, it is used by glider pilots. The two airfields are separated by a railroad track. Airplanes using the hard surface at Wiener Neustadt Ost must fly a close-in base leg, which makes for some interesting approaches, as we would see later.

Europeans are very sensitive to noise, and I think even more so if the airplane flies directly over their house. So arrivals and departures are flown with some precision: "follow the highway, turn at the water tower to avoid the new apartments, etc". After our quick pattern, we parked the Katana in front of the Aeroclub office, and went inside to do some flight planning before our flight in the DA-40. I was impressed by the club facilities. Located in an office building with attached hangar, it was bright and modern, with two computer stations for weather and flight planning. They even had a very modern simulator for instrument and emergency procedure training.

The DA-40 that we flew, OE-KDI is a 4-place airplane with a 135hp Thielert diesel engine. You are likely thinking that for 4 people, the airplane needs more power. And you are correct. It is a great 2-place airplane with all the things you need for travel, or a 4-place airplane when light on fuel. The airplane was parked in a hangar with three huge turntables that rotated the airplane to a position where you could pull it out of the hangar. How many people remember the old round hangar with turntable at Capital City?



Flying with a diesel engine is another one of those peeks into the future. First of all, you turn on the Master and wait for the word "GLOW" to disappear on the annunciator panel. The engines starts without hesitation and the next thing you notice is how smoothly it runs. Very smoothly. I am not sure why, but it could be a combination of an inline design, water cooling, and a composite propeller. The engine has only one control, which you can call a power lever. The engine fadec (full authority digital engine control) manages both manifold pressure and propeller rpm. You don't really do a run up with this arrangement. You push and hold a test button, and the fadec tests everything, including increasing the engine power and cycling the propeller. Then you check channel A and B of the fadec, and the engine is completely tested prior to takeoff.

As we were taxiing for takeoff, we noticed a Diamona on takeoff roll. The Diamona is similar to the Katana, except that it has longer wings for soaring, and a tail wheel. Thomas told me that the pilot worked for Diamond Aircraft, and that he was also a glider pilot. Takeoff rotation is at 59 kts and climb is at 65 kts with Takeoff flaps selected. We headed south to depart the traffic pattern, and after climbing through 3000', we noticed the Diamona, soaring in some thermals with the engine shutdown and the propeller stopped. Then I pointed out another airplane to Thomas. It appeared just above the Diamona, but much higher and much faster. We couldn't tell what type it was, but keep that sighting in mind and read on!

Our flight plan would take us to the southeast of Vienna, out an over a vast wetland area prior to the Austrian/Hungarian border. We had selected an airport in western Hungary as a turn point to use on the way to Punitz, Austria for lunch. You might say we were hungry over Hungary, and landed for a bite to eat. The way you set power on the diesel engines is with an instrument calibrated in % power. At 70% power the diesel was burning 5.0 gph, and at 60% power it was burning 4.3 gph. Since Jet A is cheaper than 100LL, these low fuel flows and cheaper fuel prices are attractive.

The DA-40 proved to be a great flying airplane, with good manners all around. I did find that the rudder forces were a little high and did not match well with the lighter forces and displacements needed on the control stick. With the two of us and nearly full fuel, the airplane stalls clean at 42 kts and pitch at about 20 degrees nose up. There is little tendency to pitch down at the stall, and you can actually go all the way to full back stick without any uncommanded motions. In turning stalls, and stalls with full power, there is a little right wing drop at the stall, mainly due to the right rudder necessary to keep the ball in the center a low speed and high power.

We landed at Punitz, Austria for lunch and taxiing to the ramp, I spotted something familiar in one of the hangars. An RV-8! After parking, we went over to investigate. While looking over the airplane and taking a few pictures, I noticed the engine was still warm. The owner must be nearby! So we paid a visit to the "control tower" (actually a tower where the "unicom" operator sits), to bring salutations and the landing fee of 13 euros (about \$18.25). He told us that the RV-8 owner, Mr. Peter Kalcher, was finishing his lunch at the restaurant.

So we walked to the restaurant at the north end of the airfield, and introduced ourselves. Peter makes his living as an optician, and his RV-8 is one of only 4 RV-8s in all of Austria. His son is also a pilot, and flies the glider that was sandwiched into the hangar next to the RV-8. We asked about his flight that morning, and he told us that he had been to an airfield to the west of Vienna to visit friends. And then it hit both Thomas and I at the same time. We found a map and drew the line and sure enough, that small airplane flying fairly fast that we had noticed earlier, was Peter Kalcher in his RV-8!

Here are pictures of Peter and myself, and of the nose of Peter's airplane. The nose art reads: "Work, But Don't Sweat It". Kind of resembles the poster of Rosie the Riveter, and I wonder if Peter's wife helped with the riveting. We departed Punitz and flew across the mountains on a fairly straight line toward Vienna. This part of Austria is a quite picturesque. Where the hillsides favor the sun, there are vineyards and small villages. In the mountains, there are villages set in the valleys, usually centered around a church with an Orthodox style spire, and a castle nearby on top of a hill.



Pattern entry for Wiener Neustadt Ost airport is from a 45 deg leg to the downwind, and once again, we had to keep the pattern in tight and avoid flying west of the railroad tracks. We parked the DA-40 at the Aeroclub for the next pilots waiting to fly it, and headed to the headquarters of Diamond Aircraft to check out the DA-42, a twin-diesel powered airplane, and stopped at the desk to pick up the paperwork for the airplane we had been assigned to fly. Thomas is rather particular in reviewing aircraft records, and he noted that the insurance certificate had expired in June! But after a few phone calls (he knows the company officials well enough to call on a weekend), we were quickly assigned to another airplane.

The airplane we flew, DA-42 with registration OE-FBT, was serial number 351, so you can see that Diamond Aircraft is moving along nicely with aircraft sales and production of the DA-42. Once again, entry to the airplane was very easy. It is easy to climb up and onto the wing using the step that extends from the fuselage, and the forward opening canopy

gives plenty of room for entry. The airplane was equipped with the full Garmin suite of flight instruments, which is very impressive. The avionics provide most of the features of a modern commercial jet, except that while the autopilot utilized information from the Garmin 1000, it was controlled by a separate autopilot panel.



Unlike the previous two airplanes, which required differential braking for nose gear steering, the DA-42 has a steerable nosewheel. However, the forces were quite high, and while trying to steer on the ground, there was a noticeable interference problem where your foot could catch on the “S” curve cable housing that allows the rudder pedals to be adjusted fore and aft (not an usual system, usually found on gliders, and also found on the RV-8 design).

The DA-42 uses the same Thielert diesel engines, and in addition to using a single power lever to control thrust and propeller pitch, it utilized the same engine check procedure as the DA-40. And like the previous airplanes, there were 3 flap positions possible, Up – Takeoff/App – Land. We departed the airport, flew the noise abatement procedure, and headed north and west toward the valley created by the Danube River. To get there required crossing several ridgelines reaching 4-5000’ in height.

After doing some sightseeing and reviewing the capability of the Garmin 1000, we climbed to 10,500’ to check fuel consumption. Passing 10,000 feet in the climb, we were still climbing 800 fpm, which is good for a twin with 135 hp per engine. Compared to 5,500 feet where at 70% power we were burning 5.5 gph/engine, at 10,500’ and 70% fuel consumption dropped to 4.9 gph/engine, at 130 kts indicated airspeed.

During the descent and approach to the airport, we decided to investigate the airplane on one engine. So we shut down each engine (OK, not at the same time....) and observed that the system had automatically feathered the propeller. We did the first re-start at 130 kts, and from a pilot standpoint, the un-feather and propeller spin up was just as if we had used

the starter. The second engine re-start was at 120 kts, which is a little slow for a wind milling airstart, but other than being slightly slower, the start was perfectly normal.

Then came the fun part, and it turned out to be both challenging and fun. We discussed which engine to bring to idle, and since it was planned as a right turn to final, we decided to simulate the left engine being failed (the turn would be into the good engine). By the numbers, the downwind was flown at 100 kts with 80% power on the good engine and flaps set at Takeoff/App.

Once the descent is initiated, the landing is considered to be assured, so speed can be slowed to 85 kts (which is normal approach speed with two engines and Landing flaps). We had planned an intentional go-around once lined up on final, and the procedure is full thrust, Gear – Up, and Flaps – Up while maintaining 85 kts (which can require a slight descent). Airspeed should not go below 82 kts, which is the blue line speed where a positive rate of climb is assured.



The airplane ahead of us was a Katana, flying at 65 kts on final, AND he decided to do a touch and go. We were already on a close in base, and I offset to the right to keep the Katana in sight while executing the single-engine go-around. Then off to our right was a paraglider in a pattern of his own to the south of the airfield. We climbed ahead and above the Katana, and turned left to enter a downwind from the opposite side. This would put us on a left downwind, with the final turn now toward the “dead” engine. The left base turn is no easier because you still have to turn inside the railroad track. We turned base and noticed another airplane nose-to-nose on the right base to the same runway, so we continued the turn to runway heading and executed a second single-engine go-around, this time into the dead engine.

Finally, once again from the left side, we had the pattern to ourselves, and made a “normal” single-engine landing. It was a rather busy end to a rather extraordinary day of flying, one of those rare days where people and airplanes and different cultures cross in unexpected ways. I made a special effort to thank Thomas, and to thank the management at Diamond Aircraft for making the DA-42 available for our use. My single most important observation about the Diamond family of aircraft is how similar each airplane is in

terms of general layout, and design philosophy. This makes transitioning from one airplane to the next very straightforward.

With summer winding away and the start of the crisp days of Fall flying, remember to plan your flights carefully, be alert for changes in weather that will occur more rapidly, and also remember to help your fellow pilot when you see that help is needed.

EDITORIALS:

MASON AVIATION DAY

I would like to personally thank all the members who came out to Mason Aviation Day to volunteer their time to make our event a success. I especially thank Bob & Margie Clark; Doug Koons; Joe Madziar; Bill Purosky; Al Spalding; Bruce VanFarowe & Ken Vandenbelt for their participation in all the pre-event meetings and numerous pre-event organizational tasks.

We may have been hampered by weather in the afternoon, but the morning was great!! The number of visitors was wonderful. A special "thank you" to Dan Schiffer for coordinating most of the warbird pilots who flew in for breakfast. To have eleven AT-6 Texans plus a Corsair, three Stearmans, a Tiger Moth and a twin Beech was an amazing sight for both the visitors and us TEW folks.

We had 59 registered pilots (which was not a record, but respectable none the less) and we served 510 breakfasts - which is just short of our record for a one day event during the years I have been tracking numbers in this decade.

It was very rewarding to hear our visitors say how much they enjoyed the event and you should each give yourself a well deserved pat on the back.

Vickie Vandenbelt

EAA55 - MAD SPONSORS

Chapter 55 owes a big "thank you" to the following local sponsors who made generous donations to our EMU - Newberry Aviation Scholarship Fund; Ingham Regional Medical Center; Pierce Plumbing & Heating; QoE Consulting; Mason Insurance Agency; Great Lakes Air Ventures; Xango-James Andrews; Wolverine Engineers & Surveyors; Independent Bank and Dr. Gregory Pinnell. We also thank AOPA, Aircraft Spruce; AVEMCO Insurance; Chateau Aeronautique Winery; Piper-McCredie Agency; Trade-A-Plane; Wag-Aero; and Wicks Aircraft for their donation of pilot gifts and door prizes.

When taking care of your personal needs, think of these folks and thank them for their contributions to the success of our event.

Vickie Vandenbelt

Project Status by Al St. George Name, Model, Status/Next

Don Burt, Stinson

Cook/Hover, RV-6A

Ralph Gregus, Zenith CH750, compl. wings, slats, flaperons, tail, working on fuselage.

Greg Harris, Zenith CH750, form blocks and tooling, tail next.

Gordon Hempstone, Avid

Steve Houghton, RV-7A, 90% done, finishing mech/elect, fairings, pants, cowl, paint.

Dave Keller, Stearman

Bill Purosky, Glastar

Bob Smith, Z-Max

Connie Stewart, Champ

Jack Toman, Kitfox, flight test done, building time, for sale.

Ken Vanderbilt, Stearman, upper wing #1 covered & rib stitching started

Craig Tucker, Grobee

Additions and corrections to Al St. George, 517-694-9409,
asgvistald@yahoo.com



FROM THE FLIGHT SURGEON

By Gregory Pinnell, MD

September is here and fall is just a few weeks away. Along with it will be the beginnings of the flu season.

The Center for Disease Control recommends that anyone over 6 months old receive the seasonal flu shot. This helps protect against potentially deadly consequences of flu. The H1N1 vaccine will be included in this year's seasonal shot so only one poke will be needed!

It is always a good idea to wait 8-12 hours between vaccination and flying aircraft to protect against possible adverse reaction to the shot. Fly healthy and safe!

CHAPTER 55 CLASSIFIEDS

HANGARS: EAA55 Builders Hanger 517-589-5051 or Deanna 517-851-7047 or Lloyd 517-589-8619

WANTED: Garmin 396 or 496. Contact Dan Schiffer 517-862-6413

Old towels for use as cleaning rags at EAA55.

FOR SALE: Legal Eagle ultra-light experimental airplane; built in 2007, gray, 281" wingspan, rebuilt 1/2 Volkswagon engine, 5-7 flight hours, one seat, wooden propeller stamped with 54 x 22, altimeter, oil pressure gauge, tachometer, volt meter. From the estate of Jim Cushing; asking \$10,000. James Devereaux 989-534-1333

Pietenpol Air Camper, 2 place, Lycoming A65 HP
Fun to fly, I need \$\$ for new Pete in progress.
Kyle Bradford 517-663-3083

2009 Kitfox; Model 4-1200; Rotax engine; many extras.
Jack Toman 517-882-8331

KIS TR-1, Subaru Legacy engine; GPS nav/com; many
extras. George Moore 517-536-1034

Rans 2007 S6S Coyote II; Rotax 912; many extras;
\$49,000. Ernie Lutz 517-676-4601

DTV antenna; analog or digital; \$20.00 George Moore
517-536-1034

Telex ProCom 200 noise canceling headphones. Bart
Smith 517-676-2146

Generac Generator; \$350.00 Greg Hover 517-676-5126

Yesteryear Aviation; new surplus hardware; 517-676-
4416

FREE: Collection of Sport Aviation dating from 1958
on; All in boxes. Bart Smith 517-285-1518

Contact Warren or Vickie to place your ad here!

POCKET CALENDAR:

Sep 10 = Program: MDOT Seminar

Sep 10 & 11 = MERFI (Mid-Eastern Regional
FlyIn)

Sep 17 = William Aero Potluck

Sep 17 = Chateau Aeronautique Party

Sep 17 = Forest Hill Airport FlyIn

Dec 11 = Xmas Party; Eldorado; 4:00pm;

Sunday

Jan 21&22 = Great Lakes Aviation Conference